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ANNEX

Section *Materia Med*

No. *14869*

Floyd, John

An experimental enquiry, into the
medical properties of the *Magnolia tri-*
petala, and *Magnolia acuminata*. 1806

Copy in the National Library of
Medicine lacks 3d prelim. leaf (p. ~~iii-~~
~~iv,~~) that reads:

To

Doctor Ferguson

of

Louisville, Kentucky

By

His Friend

and

Pupil

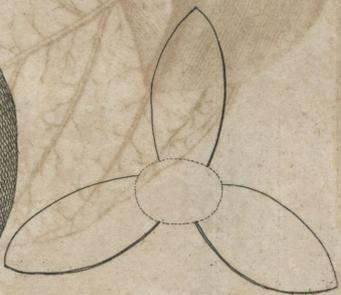
The Author.

Cf. letter of 11 Jan. 58 to Harriet
C. Jameson from W. B. McDaniel, 2d,
which describes copy in the Library of
the College of Physicians of Philadel-
phia.



MAGNOLIA *Acuminata*

B. Tanner Sc.



Turpin del.



AN
EXPERIMENTAL ENQUIRY,
INTO THE
MEDICAL PROPERTIES
OF THE
MAGNOLIA TRIPETALA,
AND
MAGNOLIA ACUMINATA.

*Library of the
14869
Washington, D.C.*

BY JOHN FLOYD,
OF KENTUCKY,

HONORARY MEMBER OF THE PHILADELPHIA MEDICAL SOCIETY,

AND

MEMBER OF THE PHILADELPHIA MEDICAL LYCEUM.

PHILADELPHIA:

PRINTED FOR THE AUTHOR, BY JOHN H. OSWALD.

.....

1806.

AN
INAUGURAL DISSERTATION,
FOR
THE DEGREE
OF
DOCTOR OF MEDICINE,

SUBMITTED
TO THE EXAMINATION
OF THE
REV. JOHN ANDREWS, D. D. PROVOST, (Pro Tem.)

THE
TRUSTEES AND MEDICAL PROFESSORS
OF THE

UNIVERSITY OF PENNSYLVANIA,

ON

THE 21st DAY OF APRIL, 1806.

TO
BENJAMIN SMITH BARTON, M. D.

PROFESSOR OF
MATERIA MEDICA,
NATURAL HISTORY, & BOTANY,
IN THE
University of Pennsylvania.

SIR,

IF I were to express my sentiments and feelings on this occasion, with the same *fervor*, that has become so *fashionable*, in dedications of this sort, I should vociferate with the most clamorous. But believe me, sir, your friendship is still more prized by me, as it is not the offspring of formal letters. And though it is not my custom to make professions, yet fashion seems to demand it in the dedication of a Medical Thesis; but from this law, established by custom, I must depart, as I believe if this production had been the effort of a Darwin's genius, not mine, it could not have added one single ornament to your literary crest.

Your Friend,

THE AUTHOR.

TO
BENJAMIN RUSH, M. D.
PROFESSOR OF
The INSTITUTES & PRACTICE OF PHYSIC,
AND OF
CLINICAL REPORTS,
IN THE
University of Pennsylvania.

SIR,

THE great services done me, by you, many years ago, when in this city, labouring under a pulmonary affection, are gratefully remembered by me. The fatality of that disease, and the great train of evils that are its concomitants, first induced me, added to your success in my own case, to begin the study of medicine, thereby afterwards to investigate its nature, that I might be enabled to give the same relief to others, that your talents enabled you to give me.

Your Friend,

THE AUTHOR.

THIS DISSERTATION,

IS

ALSO INSCRIBED

TO

JAMES WOODHOUSE, M. D.

PROFESSOR OF

CHEMISTRY,

IN THE

UNIVERSITY OF PENNSYLVANIA.

By His Sincere Friend,

The Author.

INTRODUCTION.

AS the science of Medicine has long been the study and delight of men, whose talents have ranked them among the great of every country, it were a fault, in the youth of this day, not to cultivate it still, and endeavour to add new ornaments to this stupendous edifice, by the acquisition of another active and powerful medicine.

It cannot surely be an objection that we have a *Materia Medica* sufficiently large at present, and that all the philosophical physician has to learn, is the various and best modes of combining the articles of medicine as applicable to the state of disease, or form of morbid action under his care. I would not be understood as increasing the list of medicines; but rather as substituting better in the place of those that should be expunged, as possessing little virtue.

We have seen the great Sydenham, that star in medicine, who stands like the steadfast pole, to guide the assiduous student to truth and eminence in his profession, lamenting the want of a medicine, such as we now possess in the *Ipecacuanha*; though he had many sure and valuable emetics then in his hands. And does not the *Spiræa Trifoliata* promise nearly as much?

If we were to cease now from the attempt to enlarge and amend our *Materia Medica*, it would at once be an acknowledgment, that we had arrived at the zenith of perfection; which, indeed, is far from being the case. There is no doubt with me but that there are on some sweet choice spot of great Nature's bosom, many valuable medicines yet undiscovered, that will, in their turn, claim the attention and praise of medical gentlemen, as has Mercury, Opium, and Cinchona.— Would he not be truly great indeed, who should discover a medicine that would be as certain in the cure of Mania, as mercury in Syphilis, or the Bark in Intermittents?

Contemplating the rapid progress of medical science, in the United States, the time is not distant when those cataleptic statues which fill the walks and passages of our hospitals, will find quick and permanent relief, by some "sweet oblivious antidote," which our fathers in physic knew not of. Nor will Manalgia be longer disobedient to the skill of the physician whose efforts now are often too weak to protract the term of life, or quell the stormy waves of his distempered faculties, which rage like the boisterous ocean, when the dark whirlwinds hang upon its breast. Too long, also, has that pale-faced monster, Pneumonicula, stalked with unrivalled sway, and by dark and insidious steps, with flattering omens, seized upon the constitutions and lives of men, ever ready to believe and hope the best.

A physician should not leave any thing to futurity: nor should he leave a subject to be prosecuted or investigated by his children or his successors; but let him exert his own talents, and they may perhaps go farther. By such delays, we have suffered much; as diseases have been suffered to pour forth their destructive wrath, which has swept from earth many thousands that should have lived. And had more such men as *Jenner* lived, it had been well. What has the apathe-

tic mind of a physician to console it, when he sees some of the most valuable medicines in the whole list of the *Materia Medica* introduced into practice by a Slave, a Quack, or wandering Savage? For such were the discoverers of the *Quassia Amara*, the *Cinchona*, and many others, to the great disgrace of scientific men, whose towering minds could not stoop to pluck a plant, or investigate a thing that wears the aspect of so much simplicity; but following the more noble and sublime pursuits, become deranged by a vain attempt to discover the *Alcahest*, or the *Philosopher's Stone*.

But could they be brought to their proper senses, they would at once perceive, that it was "but a tale of the times of old, of deeds of days of other years."

SECTION FIRST.

Of the genus *MAGNOLIA*, which was so named by Linnæus, in honour of *MAGNOL*, an eminent French botanist, there are many species. Linnæus himself was indeed acquainted with only four species, to which he has given place in his great work the *Species Plantarum*. These species are the following, viz,

Magnolia Grandiflora,
Magnolia Glauca,
Magnolia Acuminata,
Magnolia Tripetala.

Willdenow, in his recent edition of the *Species Plantarum*, has described eight species of this genus: viz.

Magnolia Grandiflora,
Magnolia Plumieri,
Magnolia Glauca,
Magnolia Obovata,
Magnolia Tomentosa,
Magnolia Acuminata,
Magnolia Tripetala, and
Magnolia Auriculata.

Michaux has described several species in his *Flora Boreali-Americana**, two of which were undescribed by Willdenow, or any preceding botanist. To these new species the French botanist and traveller has given the names of

Magnolia Macrophylla, and
Magnolia Cordata.

* *Tom. 1. p. 327, 328.*

It is remarkable that the ten species of *Magnolia* are known to be natives of the continents and islands of America, with the exception of the *Magnolia obovata* and *Magnolia tomentosa*, which are indigenous to China and Japan.

I have chosen as the subject of my inaugural dissertation, two of the above mentioned species of this noble genus of vegetables. These are the *Magnolia Tripetala*, and the *Magnolia Acuminata*, the former of which is thus briefly described by Linnæus.

Magnolia (Tripetala) foliis lanceolatis petalis exterioribus dependentibus. Sp. Pl. p. 756.

It is the *Magnolia umbrella*, of Lamarck, whose description is preferable to that of the Swedish Naturalist, and is as follows: viz.

Magnolia (Umbrella) foliis lanceolatis ovatis umbrellatim confertis patentissimis petalis, exterioribus dependentibus—Lamarck, Encycl. 3 p. 644.

It is the *Magnolia foliis lanceolatis, amplissimis petalis exterioribus dependentibus of Mill. Dict. No. 3.*

This species is a native of various parts of the United States, to the south of the state of New-York. It is not common in Pennsylvania, but is extremely common in some parts of Virginia, Tennessee, Kentucky, Carolina, Georgia, &c. It is best known by the name of "Umbrella-tree" by reason of the peculiar and beautiful disposition of its leaves. It is also called Big-leaf, Elkwood, Indian-bark, &c.

The *Magnolia Tripetala* often attains the height of fifty or eighty feet; the trunk is rather slender, and is covered with a smooth bark, and is divided into a number of branches. The

leaves are very large, and measure frequently from twelve or fifteen, to eighteen inches in length, and from six to eight in breadth: They arrive to a point at each extremity, and are placed at the extremities of the branches in a circular manner somewhat resembling an *Umbrella*, so that this species has received one of its common appellations, and even a scientific specific appellation from Lamarck.

The flowers are composed of ten or eleven large, oblong white petals; the extremities hanging down (*petalis exterioribus dependentibus.*) They have an extremely powerful, and to most persons, nauseous odour, similar to that of some of the secretions of animals: Dr. Barton informs me, that he is always rendered sick at stomach, when he examines the flowers, unless he is careful to do it in the open air.

The flowers are succeeded by oblong conical seed-vessels, between three and four inches in length, and about one inch and an half in diameter. As they become ripe, they grow reddish, and disclose their seeds, after the manner of most, if not all the other species of the genus.

This is a beautiful ornamental tree, and would deserve more of our attention in gardens, if it were not for the odour of its flowers.

The *Magnolia Acuminata*, the other subject of my dissertation, is thus described by Linnæus, viz.

Magnolia (acuminata) foliis ovato-oblongis, acuminatis.—
Sp. Pl. p. 756.

It is the *Magnolia foliis ovata lanceolatis acuminatis amaris, floribus obtusis*, of Miller, *Dict. No. 4.*

This species is found in more northern parts of the United States than the *Magnolia tripetala*. Michaux does not assign to it a more northern residence than that of Pennsylvania. But Dr. Barton informs me, that he met with it in the state of New-York, near the lakes Owasko and Cayuga—From this it extends southward, through Pennsylvania, Virginia, Kentucky and to the Carolinas, almost always affecting the mountainous tract of country, and sometimes the summits of the highest mountains. Dr. Barton has observed it on the summit of Parnel's Knob, one of the highest peaks of Pennsylvania, and whole forests of it on the north side of the river Ohio, especially about the sources of Big-Beaver creek.

This species is called in some of the books of Botany, Long-leaved mountain *Magnolia*—*Magnolia*,—or Cucumber tree. Cucumber tree is its most general appellation in many parts of the United States—In the state of New-York, it is known by the very improper name of Cypress tree.*

The *Magnolia acuminata* often grows to the height of thirty or sixty feet; and from one foot and an half to more than two feet in diameter; towards the top it divides into several branches, and is furnished with large, oblong, sharp-pointed leaves. The flowers make their appearance in the spring, and are composed of twelve large petals irregularly tinged with a bluish or stone colour. The seed-vessels are about three inches long, and from their supposed resemblance to a Cucumber have given name to the tree. When ripe, they assume a fine crimson colour, and disclose the seed, which now hang down suspended by a cottony-thread, and make a beautiful appearance.

The annexed engraving of the *Magnolia acuminata* is correctly engraved from a fine drawing by Mr. Turpin, in the possession of Professor Barton.

* *Dr. Barton*

SECTION SECOND.

One ounce of the *Magnolia tripetala* was put into a retort with eight ounces of water ; and after having exposed it for some time to two hundred and twelve degrees of heat, receivers were applied and luted in the usual manner. The first product was a clear transparent fluid ;—that which followed was somewhat darker. It was aromatic and pleasant to the taste, and seemed in some degree to partake of the peculiar, but pleasant flavour of the fresh bark. It was then submitted to the following tests. With litmus paper, no change : oxy sulph of iron : dark green, or brownish ; acetate of lead, light yellow.

Two ounces and an half of alcohol were added to two drachms of the *Magnolia tripetala*, to which, upon standing forty-eight hours the same tests were applied, and with the same result, only that the yellow colour produced upon the addition of the acetate of lead, was much more deep ;—all the succeeding attempts were attended with nearly the same result.

As all vegetables, with a very few exceptions, contain resin, I thought it but just to conclude that the *Magnolia* contained it in considerable quantities : therefore, to satisfy myself, some of the powder was exposed to light in sulphuric ether, which soon convinced me that the supposition was correct. But as I was not particular in ascertaining the exact quantity of resin contained in an ounce, I did not pursue this experiment so far as to obtain it all, I consequently added seven drachms of the bark to eight ounces of alcohol first, and from it procured about a drachm of resin which was of a beautiful yellowish brown colour ; it was pleasant and aromatic to the taste, causing a sensation of warmth in the mouth and fauces when taken in a large dose, to be afterwards noticed.—The effect of small doses upon the pulse, were as may be seen below. The principal

part of these experiments upon the healthy pulse were made upon my friends, and whilst sitting, as I continually observed that it always made a difference in the number of beats when they rose to stand, or walk the room, which was of a moderate temperature. Finding the difficulty much greater than I first calculated on, the experiments were made with the common minute hand of a watch with a second hand and also with the pulse glass: counting with this glass a fourth of a minute, and by several times turning it a whole minute. So that my experiments are as correct as I could make them.

5 gr. of the resin, 10 o'clock, A. M.

<i>Min.</i>			<i>Pulse.</i>
0	-	natural	72
5	-	-	72
10	-	a little fuller	74
15	-	a heat at stomach, slight	74
20	-	-	75
25	-	-	74
30	-	still a little fuller	74
35	-	.	73
40	-	-	70
45	-	natural	72
50	-	-	72
55	-	-	72
60	-	remains the same	72

6 gr. extract, 11 o'clock, A. M.

<i>Min.</i>			<i>Pulse.</i>
0	-	natural	72
5	-	no change	72
10	-	a little fuller	73
15	-	-	74
20	-	-	74
25	-	-	73

<i>Min.</i>		<i>Pulse.</i>
30	- still a little fuller -	73
35	- - -	72
40	- - -	71
45	- natural -	72
50	- - -	72
55	- - -	72
60	- remains the same -	72

6 gr of the Gum, 9 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	60
5	- - -	60
10	some change in the volume of pulse	62
15	- - -	63
20	: same -	63
25	- - -	62
30	- - -	61
35	- - -	60
40	- - -	59
45	- - -	60
50	- natural -	60
55	- - -	60
60	- still the same -	60

14 gr. resin, 9 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	72
5	- fuller -	76
10	- - -	77
15	- still a little fuller -	77
20	- - -	79
25	- - -	81
30	heat in the fauces and stomach	83
35	- the same -	83

<i>Min.</i>		<i>Pulse.</i>
40	- .	81
45	- -	80
50	- not so full -	79
55	- -	77
60	- still a little full -	76

18 gr. resin, 11 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	64
5	- fuller -	68
10	- -	69
15	- full .	70
20	- warmth at stomach -	70
25	- -	72
30	- -	73
35	- heat at stomach -	76
40	- warmth of the face -	77
45	- -	74
50	- -	74
55	- full -	72
60	- -	69

15 gr. Pulv. Cort. Mag. Trip. 9 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	64
5	- little or no change .	64
10	- -	66
15	- fuller -	66
20	- -	67
25	- -	66
30	- much the same -	65
35	- -	65
40	- -	64

<i>Min.</i>		<i>Pulse.</i>
45	- -	63
50	- -	63
55	- -	62
60	- -	63

—+—

Infusion 1oz. Tripetala, 4 o'clock, P. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	74
5	- - -	74
10	- something fuller -	76
15	- - -	76
20	- - -	77
25	- - -	78
30	- slight warmth and glow -	78
35	- - -	77
40	- no considerable change -	77
45	- - -	76
50	- - -	74
55	- natural, or nearly so -	74
60	- - -	74

—+—

Pulv. Cort. Mag. Trip. 1-2 a drachm, 11 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	72
5	- - -	73
10	- - -	76
15	- - -	76
20	- fuller -	76
25	- - -	76
30	- - -	77
35	- - -	76
40	- - -	76
45	- - -	74

<i>Min.</i>				<i>Pulse.</i>
50	-	still full	-	75
55	-		-	74
60	-		-	74

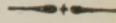
Pulv. Cort. Mag. Trip. 2 scr. 10 o'clock, A. M.

<i>Min.</i>				<i>Pulse.</i>
0	-	natural	-	64
5	-	a little change	-	66
10	-	fuller than above	-	68
15	-		-	68
20	-	full	-	69
25	-		-	70
30	-	warmth at stomach	-	70
35	-		-	72
40	-	warmth continues	-	72
45	-		-	70
50	-		-	69
55	-	full	-	67
60	-	much the same	-	66

Pulv. Cort. Mag. Trip. 1 drachm, 1 o'clock, P. M.

<i>Min.</i>				<i>Pulse.</i>
0	-	natural	-	80
5	-		-	82
10	-	fuller	-	85
15	-		-	87
20	-	full	-	88
35	-		-	90
30	-	warmth at stomach	-	91
35	-	flushing of the face	-	91
40	-		-	89
45	-		-	88
50	-		-	88

<i>Min.</i>			<i>Pulse.</i>
55	.	still full	86
60	-	-	85



All the following experiments upon the *Magnolia tripetala*, as well as upon the *acuminata*, are made upon the fresh bark, taken from the boughs about an inch, from that to two inches in diameter.

Pulv. Cort. Mag. 1 scr. 11 o'clock, A. M.

<i>Min.</i>			<i>Pulse.</i>
0	-	natural standard	72
10	-	fuller	76
20	-	still fuller	78
30	-	-	80
40	-	-	81
50	-	nearly the same	78
60	-	-	75
70	-	-	73
80	-	not so full	68
90	-	-	68



Infusion of Mag. Trip. 1 oz. 10 o'clock, A. M.

<i>Min.</i>			<i>Pulse.</i>
0	-	natural standard	64
5	-	-	65
10	-	somewhat fuller	66
15	-	-	68
20	-	full	69
25	.	-	70
30		sensation of warmth at stomach	69
35	-	-	68
40	-	-	68
45	-	-	67

<i>Min.</i>		<i>Pulse.</i>
50	- -	68
55	• not so full -	67
60	- -	66

Decoct: Mag. tripetala 1 oz. 11 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	80
10	- -	84
20	- full -	86
30	- much fuller -	89
40	- -	90
50	- slight sense of heat -	88
60	- -	85

Pulv. Cort. Mag. acum. 1 drachm, 3 o'clock, P. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	68
5	- -	70
10	- fullness of the head -	72
15	- fuller -	73
20	- -	75
25	- -	76
30	- still fuller	77
35	- -	77
40	- -	78
45	- -	76
50	• not so full -	74
55	- -	74
60	- -	72

Infusion Pulv. Cort. Mag. acum. 1oz. 10 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- -	56
5	- -	56

<i>Min.</i>			<i>Pulse.</i>
10	-	but little change	57
15	-	-	58
20	-	-	58
25	-	full	58
30	-	-	59
35	-	much the same	60
40	-	-	61
45	-	-	59
50	-	not quite so full	59
55	-	-	57
60	-	much the same	58

Decoct. Mag. acum. 1oz. 10 o'clock, A. M.

<i>Min.</i>			<i>Pulse.</i>
0	-	natural	68
5	-	-	72
10	-	fuller	76
15	-	full	77
20	-	-	78
25	-	-	78
30	-	a little warmth at stomach	80
30	-	-	78
35	-	-	79
40	-	-	77
45	-	not so full	77
50	-	-	76
55	-	-	74
60	-	-	73

Pulv. Cort. Mag. acum. 2scr. 11 o'clock, A. M.

<i>Min.</i>			<i>Pulse.</i>
0	-	natural	80
10	-	fuller	82
15	-	-	83

<i>Min.</i>		<i>Pulse.</i>
20	- - -	85
30	- full -	85
40	- - -	86
50	- - -	86
60	- no considerable change -	84

—♦—

Resin Mag. Acum. 1scr. 10 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- natural -	75
5	- fuller -	77
10	- - -	78
15	- still fuller -	79
20	- - -	81
25	- still a little heat -	83
30	- - -	85
35	- - -	87
40	- warmth at stomach -	89
45	- - -	86
50	- - -	84
55	- - -	81
60	- - -	80

—♦—

Gum. Mag. Acum. 12 gr. 11 o'clock, A. M.

<i>Min.</i>		<i>Pulse.</i>
0	- - -	72
5	- - -	72
10	- a little fuller -	75
15	- - -	76
20	- - -	78
25	- slight sense of heat -	78
30	- - -	77
35	- - -	78
40	- no great change -	76
45	- - -	75

<i>Min.</i>		<i>Pulse.</i>
50	- - -	73
55	- not so full -	72
60	- - -	72

SECTION THIRD.

I have now finished all the experiments that I judged it necessary to make upon the Magnolias, and shall now, previous to my saying any thing more as to its use, make a statement of two or three cases wherein this medicine has done good, and to state more is in my opinion entirely unnecessary, as these will answer every purpose.

Mr. —, an old man, having been attacked with a remitting fever, which was treated by bleeding, purging, &c. and the Peruvian bark, so that in the course of a few days he recovered so far as to decline the use of the bark; but being often exposed and neglecting himself too much, was in a lingering and tedious state of convalescence for some time, when he was put upon the use of the Magnolia Tripetala, which he continued for some time, with the effect of entirely recovering his usual health and strength.

Mrs. —, was for some time afflicted with severe rheumatic pains, which had been treated in the usual way for some days; but no considerable relief could be given, when she was ordered the tincture of the Magnolia acuminata, which she continued with the effect of relieving her pains, though they were ready to return upon the discontinuance of it, and were again only relieved by its use.

Mr. —, after labouring under a severe intermittent for some time, was put upon the use of the Magnolia Tripetala,

which was continued for some days, in doses of from half a drachm to a drachm, three or four times a day, so that in a short time he entirely recovered.

It is highly probable, that if the bark had been used in the case of convalescence first stated, that it would have been attended with the same result ; as also might it, if it had been used in the latter case : but the case of rheumatism stated above would not have been relieved by it, so that in this case it has done good when the bark would have availed nothing. The Magnolia has been of service in so many cases of a similar nature, that it can but entitle it to the attention of physicians, particularly those residing in those tracts of country where it flourishes. As the Cinchona is so often adulterated, and from the present high estimation in the practice of physic, as well by the plodding followers of the prophetic Cullen, as the enlightened sons of the American school, that it is difficult to obtain it good, and then only at a very considerable price ; so that by this means, the poor are too often deprived of its benefits, as the physician's circumstances are unfortunately too often so circumscribed, that he cannot give it. Indeed it is to be lamented, that those men whose brilliant minds have been so engaged in clearing out the rugged paths of science, and who are the very safeguards to the lives of men, are so frequently poor and unable to render the rest of mankind the same service by their fortunes, that they do by their profession ; as benevolence, humanity and acute feeling for the poor and the sick, characterize no set of men so much as these.

From the long and continued use of this medicine among the Indians of our country, who use it in the cure of a great proportion of their diseases, it has been found to do more good than any other medicine of which they have any knowledge, either by bold experiment or ancient tradition. So highly do they prize this medicine, that I have known them to travel

even to the distance of one hundred and fifty miles to procure not more than one man could carry upon his back, for the relief of the sick who were detained at home. Nor do I ever recollect to have seen or remember to have heard of any of these tedious convalescent cases that are not uncommon among us.

The Indians are, so far as I know, subject to all the diseases that are common to the Anglo-Americans; that the yellow fever has been among them, I have not been able to learn satisfactorily, but if I were to conclude from what I have witnessed among the white people of the western country, there can be no doubt but that they are also afflicted with this fever, as many of the cases which I have witnessed, had they occurred in the city of Philadelphia, would have been stamped a yellow fever, as clearly as any that has ever yet appeared.

As the Indians then are subject to all the ten forms of autumnal fever, as stated by Dr. Rush, so have they recourse to the Magnolia as their dernier resort. That it has done good, in most of these six which attack the blood-vessels cannot be denied; as most of the inhabitants of the frontier and mountainous parts of Virginia, bear testimony of its efficacy. It has been used with advantage in some of the pulmonary states of fever, after depletion and the usual remedies have been prescribed. And those intermittents which formerly afflicted the inhabitants of those flat bodies of land which lay upon the banks of rivers, and large water courses, causing obstructions sometimes of long and dangerous duration, are speedily and quickly cured by this medicine, and those monstrous spleens which once extended almost over the whole abdomen, are now almost entirely unknown. And indeed I believe that in every instance where it is necessary to administer the bark, it is proper also to give the Magnolia. Nay, I believe the Magnolia will often do good when the bark cannot be given, as it

has a much greater tendency to produce a sudorific effect, than that valuable medicine, nor is it so apt to disagree with the stomach, or produce vertigo, as the bark; symptoms that are always disagreeable and sometimes dangerous. It has been observed by professor Barton with his usual accuracy and candor, that in general, medicines of the bitter class cannot be long continued without some injury to the stomach, and that of the medicines of this class, Colombo may be the longest used with impunity. But I believe from many facts that have come within my knowledge, that the Magnolia is much less apt to do injury than even Colombo itself: as I have known it used for a considerable length of time by labourers and men accustomed to the woods, without this injury, but, as they have declared, with good effect, I am the more disposed to believe their accounts from the experience I have had myself in its use. In early life I became so much addicted to the use of tobacco, particularly chewing it, that when I became acquainted with the baneful effects of this detestable weed, the habit was so strongly fixed, that no effort I could make to lay its use aside could succeed. I have even thrown it down as I travelled along the road, with a resolution not to use it more. But notwithstanding this, my sensations were so undescribable and so unpleasant, that I could neither enjoy the convivial pleasantries of a gay company, or even the harmonious sounds of music, without my tobacco. And such I believe are the sensations of all who are accustomed to its use, when deprived of it. At length I filled my box with Magnolia Tripetala which I found agreeable to my taste, and used it as I had done my tobacco; which, in a short time, did away the habit so far that I could go with tolerable ease a whole day without taking one single chew of tobacco. Finding it of so much service to me, I still continued it, until I became as indifferent to the use of tobacco as any other person. Though, as I had accomplished my end, I still continued its use, because the taste was pleasant and with as much fidelity, as did ever the Duke of Port-

land his powder. Being somewhat apprehensive of the too long continuance of its use, I constantly observed my stomach, and thought I constantly felt its good effects, and when I have felt my stomach distended with flatus, a small portion chewed and swallowed, always had the effect of bringing it away.

Yet it does not follow of course that it cannot do harm, but I am rather inclined to believe it is often used injudiciously and has done injury, and there is not a doubt but the long continuance of it would do mischief, but I believe not so soon as Quassia, Colombo, or any other.

In Dyspepsia it is a valuable medicine, and should never be overlooked.

But in prescribing the Magnolia, as well as any other medicine, it would be well always to observe this invaluable maxim of the justly celebrated, but at this time too much neglected Huxham. Says he, "A disease is a disorder in the animal œconomy distinguished indeed by such and such particular symptoms, and called by such or such a name; but each particular disease, in every individual patient, is to be considered by the attending physician *not* according to the *nomenclature*, but according to the *nature, causes and symptoms* of the particular disease, in that particular person; and medicine then should be prescribed accordingly."—See Huxham on fevers, second edition.

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